

**Abstract of the Disclosure**

A method of manufacturing a non-volatile semiconductor memory device begins by forming a dielectric layer pattern having an ONO composition on a substrate. A polysilicon layer is formed on the substrate including over the dielectric layer pattern. The polysilicon layer is patterned to form a split polysilicon layer pattern that exposes part of the dielectric layer pattern. The exposed dielectric layer is etched, and then impurities are implanted into portions of the substrate using the split polysilicon layer pattern as a mask to thereby form a source region having a vertical profile in the substrate.